

## WHAT IS CLAIMED IS:

1. A gaming apparatus, comprising:
  - a display unit;
  - a value input device;

5 a controller operatively coupled to said display unit and said value input device, said controller comprising a processor and a memory operatively coupled to said processor,

10 said controller being programmed to receive downloadable gaming data from a data storage device external to said gaming apparatus;

15 said controller being programmed to receive encrypted gaming data from said data storage device, said encrypted gaming data having been generated by performing a hash function on gaming data to form a first message digest and by doubly encrypting said first message digest utilizing a private encryption key of a gaming data authoring organization and a private encryption key of a gaming regulatory organization;

20 said controller being programmed to doubly decrypt said encrypted gaming data utilizing a public encryption key of said gaming data authoring organization and a public encryption key of said gaming regulatory organization to form a decrypted message digest;

25 said controller being programmed to perform a hash function on said downloadable gaming data to generate a second message digest; and

30 said controller being programmed to compare said decrypted message digest with said second message digest to determine if said downloadable gaming data is authorized.
2. A gaming apparatus as defined in claim 1 wherein said data storage device comprises a portable data storage medium on which said downloadable data was stored when said portable data storage medium was at a location external to said gaming apparatus and wherein said portable data storage medium is physically moved so that it is operatively coupled to said gaming apparatus in order to transfer said downloadable gaming data to said controller.

3. A gaming apparatus as defined in claim 1 wherein said controller is programmed to receive downloadable gaming data that comprises substantially all gaming data that is necessary to facilitate play of a casino game.

4. A gaming apparatus as defined in claim 1,  
5 wherein said controller is programmed to receive from said data storage device encrypted gaming data that was generated by triply encrypting said first message digest utilizing said private encryption key of said gaming data authoring organization, said private encryption key of said gaming regulatory organization, and a private encryption key of a casino, and

10 wherein said controller is programmed to triply decrypt said encrypted gaming data utilizing said public encryption key of said gaming data authoring organization, said public encryption key of said gaming regulatory organization, and a public encryption key of said casino to form said decrypted message digest.

15 5. A gaming system comprising a plurality of gaming apparatuses as defined in claim 1,

wherein said gaming system additionally comprises a central computer operatively coupled to each of said gaming apparatuses, said central computer comprising a memory, and

20 wherein said controller is programmed to receive said downloadable gaming data from said memory of said central computer.

6. A gaming apparatus, comprising:  
a display unit;  
a value input device;  
a controller operatively coupled to said display unit and said value  
5 input device, said controller comprising a processor and a memory operatively  
coupled to said processor,

said controller being programmed to receive downloadable  
gaming data from a data storage device external to said gaming  
apparatus;

10 said controller being programmed to receive encrypted gaming  
data from said data storage device, said encrypted gaming data having  
been generated by performing a data-abbreviating function on gaming  
data to form first abbreviated gaming data and by doubly encrypting  
said first abbreviated gaming data utilizing an encryption key of a  
15 gaming data authoring organization and an encryption key of a gaming  
regulatory organization;

20 said controller being programmed to doubly decrypt said  
encrypted gaming data utilizing an encryption key of said gaming data  
authoring organization and an encryption key of said gaming  
regulatory organization to form decrypted gaming data;

said controller being programmed to perform a data-  
abbreviating function on said downloadable gaming data to generate  
second abbreviated gaming data; and

25 said controller being programmed to compare said decrypted  
gaming data with said second abbreviated gaming data to determine if  
said downloadable gaming data is authorized.

7. A gaming apparatus as defined in claim 6 wherein said controller is  
programmed to receive encrypted gaming data that was generated by first encrypting  
said first abbreviated gaming data utilizing said encryption key of said gaming data  
30 authoring organization to form singly encrypted gaming data and then encrypting said  
singly encrypted gaming data with said encryption key of said gaming regulatory  
organization.

8. A gaming apparatus as defined in claim 6 wherein said controller is programmed to first decrypt said encrypted gaming data utilizing said encryption key of said gaming data authoring organization to form singly encrypted gaming data and then to decrypt said singly encrypted gaming data utilizing said encryption key of said 5 gaming regulatory organization.

9. A gaming apparatus as defined in claim 6 wherein said data storage device comprises a computer located at a location remote from said gaming apparatus and wherein said controller is programmed to receive said downloadable gaming data from said computer.

10 10. A gaming apparatus as defined in claim 6 wherein said data storage device comprises a portable data storage medium on which said downloadable data was stored when said portable data storage medium was at a location external to said gaming apparatus and wherein said portable data storage medium is physically moved so that it is operatively coupled to said gaming apparatus in order to transfer said 15 downloadable gaming data to said controller.

11. A gaming apparatus as defined in claim 6 wherein said controller is programmed to receive said encrypted gaming data along with said downloadable gaming data.

20 12. A gaming apparatus as defined in claim 6 wherein said controller is programmed to receive downloadable gaming data that comprises substantially all gaming data necessary to facilitate play of a casino game.

13. A gaming apparatus as defined in claim 6 wherein said controller is programmed to receive said encryption key of said gaming data authoring organization and said encryption key of said gaming regulatory organization.

25 14. A gaming apparatus as defined in claim 6,  
wherein said controller is programmed to receive from said data storage device encrypted gaming data that was generated by triply encrypting said first abbreviated gaming data utilizing said encryption key of said gaming data authoring organization, said encryption key of said gaming regulatory organization, and an 30 encryption key of a casino, and

wherein said controller is programmed to triply decrypt said encrypted gaming data utilizing an encryption key of said gaming data authoring organization, an encryption key of said gaming regulatory organization, and an encryption key of said casino to form said decrypted data product.

5        15. A gaming apparatus as defined in claim 6 wherein said display unit comprises a video display unit that is capable of generating video images.

10      16. A gaming apparatus as defined in claim 15,  
wherein said controller is programmed to cause a video image comprising an image of at least five playing cards to be displayed if said game comprises video poker,

wherein said controller is programmed to cause a video image comprising an image of a plurality of simulated slot machine reels to be displayed if said game comprises video slots,

15      wherein said controller is programmed to cause a video image comprising an image of a plurality of playing cards to be displayed if said game comprises video blackjack,

wherein said controller is programmed to cause a video image comprising an image of a plurality of keno numbers to be displayed if said game comprises video keno,

20      wherein said controller is programmed to cause a video image comprising an image of a bingo grid to be displayed if said game comprises video bingo.

17. A gaming apparatus as defined in claim 6 wherein said display unit comprises at least one mechanical slot machine reel.

25      18. A gaming system comprising a plurality of gaming apparatuses as defined in claim 6,

wherein said gaming system additionally comprises a central computer operatively coupled to each of said gaming apparatuses, said central computer comprising a memory, and

30      wherein said controller is programmed to receive said downloadable gaming data from said memory of said central computer.

19. A gaming apparatus, comprising:  
a display unit;  
a value input device;  
a controller operatively coupled to said display unit and said value  
input device, said controller comprising a processor and a memory operatively  
coupled to said processor,  
said memory storing first gaming data;  
said memory storing encrypted gaming data that was generated  
by doubly encrypting gaming data utilizing an encryption key of a first  
gaming organization and an encryption key of a second gaming  
organization different than said first gaming organization;  
said controller being programmed to doubly decrypt said  
encrypted gaming data utilizing an encryption key of said first gaming  
organization and an encryption key of said second gaming organization  
to form decrypted gaming data; and  
said controller being programmed to check to determine if said  
first gaming data is authorized based on said decrypted gaming data  
and said first gaming data.

20. A gaming apparatus as defined in claim 19 wherein said controller is  
programmed to cause, if said first gaming data is authorized, said display unit to  
generate a game display representing one of the following games: poker, blackjack,  
slots, keno or bingo.

21. A gaming apparatus as defined in claim 19 wherein said memory  
stores first gaming data comprising substantially all gaming data necessary to  
facilitate play of a casino game.

22. A gaming apparatus as defined in claim 19,  
wherein said memory stores encrypted gaming data that was generated by  
triply encrypting gaming data utilizing said encryption key of said first gaming  
organization, said encryption key of said second gaming organization, and an  
encryption key of a third gaming organization different than said first and second  
gaming organizations, and

wherein said controller is programmed to triply decrypt said encrypted gaming data utilizing an encryption key of said first gaming organization, an encryption key of said second gaming organization, and an encryption key of third gaming organization to form said decrypted data product.

5        23. A gaming apparatus as defined in claim 19 wherein said display unit comprises a video display unit that is capable of generating video images.

10      24. A gaming apparatus as defined in claim 23,  
wherein said controller is programmed to cause a video image comprising an  
image of at least five playing cards to be displayed if said game comprises video  
poker,

wherein said controller is programmed to cause a video image comprising an  
image of a plurality of simulated slot machine reels to be displayed if said game  
comprises video slots,

15      wherein said controller is programmed to cause a video image comprising an  
image of a plurality of playing cards to be displayed if said game comprises video  
blackjack,

wherein said controller is programmed to cause a video image comprising an  
image of a plurality of keno numbers to be displayed if said game comprises video  
keno,

20      wherein said controller is programmed to cause a video image comprising an  
image of a bingo grid to be displayed if said game comprises video bingo.

25      25. A gaming apparatus as defined in claim 19 wherein said display unit  
comprises at least one mechanical slot machine reel.

26.     A method of operation of a gaming apparatus, said method comprising:  
25           receiving at said gaming apparatus downloadable gaming data from a  
data storage device external to said gaming apparatus;

30           receiving encrypted gaming data from said data storage device, said  
encrypted gaming data having been generated by performing a data-  
abbreviating function on gaming data to form first abbreviated gaming data  
and by doubly encrypting said first abbreviated gaming data utilizing an

encryption key of a first gaming organization and an encryption key of a second gaming organization different than said first gaming organization;

5           doubly decrypting said encrypted gaming data utilizing an encryption key of said first gaming organization and an encryption key of said second gaming organization to form decrypted gaming data;

performing a data-abbreviating function on said downloadable gaming data to generate second abbreviated gaming data; and

comparing said decrypted gaming data with said second abbreviated gaming data to determine if said downloadable gaming data is authorized.

10         27. A method as defined in claim 26 additionally comprising causing a game display representing one of the following games to be generated: poker, blackjack, slots, keno or bingo, if said downloadable gaming data is authorized.

15         28. A method as defined in claim 26 comprising receiving said downloadable gaming data from a computer at a location remote from said gaming apparatus.

20         29. A method as defined in claim 26 wherein said data storage device comprises a portable data storage medium on which said downloadable data was stored when said portable data storage medium was at a location external to said gaming apparatus and wherein said portable data storage medium is physically moved so that it is operatively coupled to said gaming apparatus in order to transfer said downloadable gaming data to said controller.

30.       A method as defined in claim 26 comprising receiving said encrypted gaming data along with said downloadable gaming data.

25         31. A method as defined in claim 26 comprising receiving said encryption key of said first gaming organization and said encryption key of said second gaming organization.

32.       A method of operating a gaming apparatus having a memory with first gaming data stored therein and encrypted gaming data that was generated by doubly encrypting gaming data stored therein, said method comprising:

1           doubly decrypting said encrypted gaming data utilizing a first encryption key and a second encryption key different than said first encryption key to form decrypted gaming data;

5           checking to determine if said first gaming data is authorized based on said decrypted gaming data and said first gaming data; and

causing a game display representing one of the following games to be generated: poker, blackjack, slots, keno or bingo.

10          33. A method as defined in claim 32, wherein said encrypted gaming data stored in said memory is triply encrypted and wherein said method comprises triply decrypting said encrypted gaming data utilizing a first encryption key, a second encryption key and a third encryption key, each of said encryption keys being different.

15          34. A method of generating gaming data that is to be subsequently stored in a gaming apparatus, said method comprising:

generating gaming data that is to be used in said gaming apparatus;  
performing a data-abbreviating function on said gaming data to generate abbreviated gaming data;

20          causing said gaming data to be doubly encrypted with a first encryption key and a second encryption key different than said first encryption key to generate encrypted gaming data; and

causing said gaming data to be transferred to a controller operatively coupled to said gaming apparatus.

25          35. A method as defined in claim 34, wherein said controller is disposed in said gaming apparatus and wherein said method comprises causing said gaming data to be transferred to said controller of said gaming apparatus from a computer disposed at a location remote from said gaming apparatus.

30          36. A method as defined in claim 34, wherein said controller is disposed in casino computer operatively coupled to said gaming apparatus and wherein said method comprises causing said gaming data to be transferred to said controller of said casino computer from a computer disposed at a location remote from said gaming apparatus.

37. A method as defined in claim 34, comprising causing said gaming data to be encrypted with an encryption key of a gaming data authoring organization and causing said gaming data to be encrypted with an encryption key of a regulatory gaming organization.

5           38. A memory having a computer program stored therein, said computer program being capable of being used in connection with a gaming apparatus with first gaming data stored therein and encrypted gaming data that was generated by doubly encrypting gaming data stored therein, said memory comprising:

10           a memory portion physically configured in accordance with computer program instructions that would cause said gaming apparatus to doubly decrypt said encrypted gaming data utilizing a first encryption key and a second encryption key different than said first encryption key to form decrypted gaming data;

15           a memory portion physically configured in accordance with computer program instructions that would cause said gaming apparatus to check to determine if said first gaming data is authorized based on said decrypted gaming data and said first gaming data; and

20           a memory portion physically configured in accordance with computer program instructions that would cause said gaming apparatus to generate a game display associated with one of the following games: poker, blackjack, slots, keno or bingo.

25           39. A memory as defined in claim 38 wherein said memory additionally comprises a memory portion physically configured in accordance with computer program instructions that would cause the gaming apparatus to perform a hash function on said first gaming data.

30           40. A memory as defined in claim 38 wherein said memory additionally comprises a memory portion physically configured in accordance with computer program instructions that would cause the gaming apparatus to further decrypt said encrypted gaming data utilizing a third encryption key different than said first and second encryption keys.

41. A memory as defined in claim 38 wherein said memory additionally comprises a memory portion physically configured in accordance with computer program instructions that would cause the gaming apparatus to decrypt said encrypted gaming data utilizing a public authoring key and a public gaming regulator key.

5           42. A gaming apparatus, comprising:

              a display unit;

              a value input device;

              a controller operatively coupled to said display unit and said value input device, said controller comprising a processor and a memory operatively coupled to said processor and having first encrypted gaming data stored in memory and second encrypted gaming data stored in memory, said first encrypted gaming data having been generated by encrypting gaming data utilizing an encryption key of a first gaming organization and said second encrypted gaming data having been generated by encrypting gaming data utilizing an encryption key of a second gaming organization,

10           said controller being programmed to retrieve said first encrypted gaming data from memory;

              said controller being programmed to decrypt said first encrypted gaming data utilizing an encryption key of said first gaming organization to form first decrypted gaming data;

15           said controller being programmed to retrieve said second encrypted gaming data from memory;

              said controller being programmed to decrypt said second encrypted gaming data utilizing an encryption key of said second gaming organization to form second decrypted gaming data; and

20           said controller being programmed to determine if said first decrypted gaming data is identical to said second decrypted gaming data.

25           43. A gaming apparatus as defined in claim 42 wherein said controller is programmed to cause said display unit to generate a game display representing one of the following games: poker, blackjack, slots, keno or bingo.

44. A gaming apparatus as defined in claim 42 wherein said first gaming data comprises substantially all gaming data necessary to facilitate play of a casino game.

5 45. A gaming apparatus as defined in claim 42 wherein said display unit comprises a video display unit that is capable of generating video images.

10 46. A method of operating a gaming apparatus, said method comprising:  
retrieving from memory first encrypted gaming data that was generated by encrypting gaming data relating to a casino game utilizing an encryption key of a first gaming organization;

decrypting said first encrypted gaming data utilizing an encryption key of said first gaming organization to form first decrypted gaming data;

retrieving from memory second encrypted gaming data that was generated by encrypting gaming data relating to a casino game utilizing an encryption key of a second gaming organization;

15 decrypting said second encrypted gaming data utilizing an encryption key of said second gaming organization to form second decrypted gaming data; and

determining if said first decrypted gaming data is identical to said second decrypted gaming data.

20 47. A method as defined in claim 46 additionally comprising causing a game display representing one of the following games to be generated: poker, blackjack, slots, keno or bingo.

25 48. A method as defined in claim 46 comprising retrieving from memory gaming data that comprises substantially all gaming data necessary to facilitate play of a casino game.